ABSTRACT

An orientation system and method for corrective eye surgery includes a camera for performing a first image mapping of a patient's eye using a predetermined eye feature and software for processing the first image map to determine an edge location of the feature. A second image mapping of the eye is performed with the patient in a different position. The second image map is processed to locate the predetermined eye feature. Correlation of the mappings is used to calculate an orientational change of the eye between the two positions. This procedure may also be performed at different times during surgery to permit "real-time" data on orientational changes undergone by the eye to be collected. In both cases the data are used to calculate an adjustment to be applied to a corrective prescription for application by the surgical procedure.